Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A recombinant human C1 inhibitor comprising a modified O-linked carbohydrate and having an extended plasma circulatory half-life compared to an unmodified C1 inhibitor, wherein the modified O-linked carbohydrate comprises a sialylated terminal galactose residue of Gal(β1-3)GalNAc.

2-3. (Canceled)

4. (Previously Presented) The recombinant human C1 inhibitor according to claim 1, wherein the plasma circulatory half-life of the modified inhibitor has increased to at least 1.5, 2, 3 or 4 times the value of the half-life of the unmodified inhibitor.

5-6. (Canceled)

7. (Previously Presented) The method according to claim 25, wherein the enzyme preparation further comprises sialyltransferase ST3Gal III.

8-12. (Canceled)

13. (Previously Presented) A pharmaceutical composition comprising a human recombinant C1 inhibitor according to claim 1.

14-15. (Canceled)

16. (Currently Amended) A method for extending the blood circulatory half-life of a recombinant human C1 inhibitor, the method comprising~~glycoprotein or of a glycoprotein comprising compound, wherein the method comprises~~ removing one or more non-sialylated O-linked carbohydrates comprising Gal(β1-3)GalNAc from the glycoprotein by *in*

vitro incubation with an enzyme preparation comprising an Endo-α-N-Acetylgalactosaminidase~~one or more enzymes capable of removing the one or more non-sialylated O-linked carbohydrates~~, wherein the blood circulatory half-life of the C1 inhibitor~~glycoprotein or glycoprotein comprising compound~~ is extended compared to an unmodified C1 inhibitor~~glycoprotein or glycoprotein comprising compound~~.

17-19. (Canceled)

20. (Previously Presented) The method according to claim 16, wherein the enzyme preparation comprises one or more recombinantly produced enzymes.

21-24. (Canceled)

25. (Currently Amended) A method for extending the plasma circulatory half-life of a recombinant human C1 inhibitor, the method comprising sialylating an O-linked Gal(β1-3)GalNAc carbohydrate of the C1 inhibitor by *in vitro* incubation of the C1 inhibitor with an enzyme preparation comprising ST3Gal I~~at least one sialyltransferase capable of sialylating a terminal galactose residue of Gal(β1-3)GalNAc~~, wherein the plasma circulatory half-life of the C1 inhibitor is extended compared to an unmodified C1 inhibitor.

26. (Previously Presented) The method of claim 25, wherein the plasma circulatory half-life of the modified C1 inhibitor has increased to at least 1.5, 2, 3 or 4 times the value of the half-life of the unmodified inhibitor.

27. (Canceled)

28. (Previously Presented) The method of claim 8, wherein the enzyme preparation comprises cytidine-5'-monophospho-N-acetylneuraminic acid (CMP-sialic acid).

29. (Previously Presented) The method of claim 9, wherein the enzyme preparation comprises cytidine-5'-monophospho-N-acetylneuraminic acid (CMP-sialic acid).

30-31. (Canceled)

32. (New) The recombinant human C1 inhibitor according to claim 1, further comprising a modified N-linked carbohydrate comprising a sialylated terminal galactose residue of Gal(β1-4)GalNAc.

33. (New) A pharmaceutical composition comprising a human recombinant C1 inhibitor according to claim 32.